**Amendments to the Specification**

Please amend the title of the specification to read as follows:

**FIXTURELESS ~~METHOD OF~~ MANUFACTURE OF BONDED ACTUATOR/COIL ASSEMBLIES**

Please amend the title of the "Brief Summary of the Invention" section at page 4, line 7 to read as follows:

~~BRIEF~~ SUMMARY ~~OF THE INVENTION~~

Please amend the "Summary" section paragraphs beginning at page 4, line 8 to read as follows:

Various embodiments of the present invention are generally directed to the fixtureless manufacture of bonded actuator/coil assemblies.

In accordance with some embodiments, a method generally comprises steps of overmolding a coil to an actuator to attach said coil to said actuator via an intervening overmold material, and then disposing an adhesive in at least one adhesive receptacle defined in the overmold material so that the adhesive contactingly engages the coil and the actuator.

In accordance with other embodiments, a method generally comprises steps of employing an initial overmolding operation to attach a voice motor coil to a bobbin via an overmolding material while forming an adhesive receptacle in said material; and subsequently filling the

adhesive receptacle with an adhesive to further attach said bobbin to said coil, wherein the adhesive contactingly engages the coil and the bobbin.

~~The present invention is embodied by an actuator/coil assembly for a data storage device (e.g., a disk drive). More specifically, the present invention is generally directed to an improved interconnection between an actuator and a voice coil motor coil. The actuator may be in any appropriate form, including without limitation: a single actuator arm; an actuator body having an appropriate structure for attaching the coil thereto (e.g., a "tail" or "fan tail"), as well as one or more actuator arms extending from the actuator body; or an E-block with what are typically characterized as one or more actuator arm tips. Generally, the actuator/coil assembly as used herein means that portion of the data storage device that moves relative to one or more data storage disks of the data storage device or the like for purposes of data transfer operations (e.g., read/write) or exchanging signals between any head-gimbal assembly mounted on the actuator/coil assembly (typically via an intermediate load beam or suspension) and its corresponding data storage disk.~~

~~Generally, the actuator/coil assembly associated with the present invention includes a coil that is first attached to the actuator utilizing a molding operation -- more specifically an overmolding operation. The overmolding operation also forms one or more adhesive receptacles in one or more of the resulting overmolded structures. Any such adhesive receptacle is preferably disposed at the perimeter or edge of the relevant overmolded structure. This provides a space between an overmolded structure that is defined by the overmolding operation and the structure to which this overmolded structure is attached by the overmolding operation. An appropriate adhesive thereafter may be deposited in the adhesive receptacle(s) to strengthen the~~

~~interconnection between the overmolded structure defined by the overmolding operation and the structure to which this overmolded structure is attached by the overmolding operation.~~

~~A first aspect of the present invention is embodied by a method for mounting a voice coil motor coil to an actuator for a data storage device (e.g., a disk drive). A voice coil motor coil is attached to an actuator by an overmolding operation. An adhesive is disposed in a space between a part defined by the overmolding operation (an "overmolded part") and what may be characterized as a pre-existing structure (e.g., the actuator, the coil) to which this overmolded part is attached by the overmolding operation.~~

~~Various refinements exist of the features noted in relation to the first aspect of the present invention. Further features may also be incorporated in the first aspect of the present invention as well. These refinements and additional features may exist individually or in any combination. The overmolding operation that attaches the coil to the actuator may define a first overmolded part. An interconnection between this first overmolded part and the actuator and/or coil may be of a first stiffness from the overmolding operation itself. Any such interconnection may have its stiffness increased by also introducing an appropriate adhesive into a space between the first overmolded part and the adjoining actuator and/or coil in accordance with the first aspect.~~

~~The overmolding operation may define a first overmolded part that structurally interconnects the coil and the actuator. The overmolding operation thereby may attach the first overmolded part to both the actuator and the coil in the case of the first aspect. Any other number of appropriate structures may be defined by the overmolding operation as well. For instance, a bobbin may be defined by the overmolding operation. The coil may be disposed about at least part of bobbin (e.g., the bobbin being disposed within an opening in the coil), with~~

~~the bobbin in this case also being attached to the coil by the overmolding operation. A coil with a bobbin already attached thereto (e.g., via a press-fit) may be overmolded to the actuator in accordance with the first aspect as well. Adhesive may be applied to a space between this coil/bobbin assembly and the first overmolded part, to a space between the first overmolded part and the actuator, or both.~~

~~The coil and actuator may be disposed within a mold for execution of the overmolding operation in accordance with the first aspect. The overmolding operation may be viewed as providing a first level of attachment of the coil to the actuator. The actuator and attached coil thereby may be removed from the mold as a single unit for application of an appropriate adhesive in accordance with the first aspect. That is, the adhesive may be introduced into a relevant space between an overmolded structure and one or more of the coil and actuator, for instance after the actuator with the coil attached thereto has been removed from the mold as a single unit. Since the coil is already attached to the actuator by the overmolding operation, no fixtures are required to maintain the coil in a fixed, desired position relative to the actuator when applying an appropriate adhesive in accordance with the first aspect. That is, the overmolding operation itself disposes the coil in a fixed, predetermined position relative to the actuator, thereby alleviating the need for any fixture for the application of an adhesive to the actuator/coil assembly in accordance with the first aspect.~~

~~The overmolding operation associated with the first aspect may include forming at least one adhesive receptacle in at least one overmolded part that is defined by the overmolding operation, and an adhesive may be deposited in any such adhesive receptacle further in accordance with the first aspect. Each such adhesive receptacle may be of any appropriate size~~

and/or configuration, but will typically be located at a perimeter of the relevant overmolded part such that depositing an adhesive therein will allow the adhesive to attach to both the overmolded part and the adjoining actuator and/or coil. A plurality of adhesive receptacles may be spaced along the interface between the overmolded part and the adjoining actuator and/or coil. A single adhesive receptacle may extend along the entire interface between the overmolded part and the adjoining actuator and/or coil. One or more adhesive receptacles may be formed in the overmolded part so as to adjoin both the actuator and the coil, such that an adhesive disposed therein will attach to the actuator, the overmolded part, and the coil to further strengthen the interconnection of the coil to the actuator. One or more adhesive receptacles in accordance with the foregoing may be formed on the top and/or bottom surface of the relevant overmolded part as well. In one embodiment, any such adhesive receptacle extends only partially through the corresponding overmolded part. Another embodiment has any such adhesive receptacle extending entirely through the corresponding overmolded part.

Consider the case where the overmolding operation associated with the first aspect forms a first overmolded part that attaches the coil to the actuator, and also forms a second overmolded part or bobbin that is also attached to the coil. The coil may be disposed about at least part of the bobbin (e.g., the bobbin being disposed within an opening in the coil). The interconnection between the bobbin and coil may be enhanced by including one or more adhesive receptacles on the upper and/or lower surface of the bobbin that interface with the coil in accordance with the foregoing. The interconnection between the coil and the first overmolded part may be enhanced by including one or more adhesive receptacles on the upper and/or lower surface of the first overmolded part that interface with at least the coil in accordance with the foregoing. Finally, the

~~interconnection between the first overmolded part and the actuator may be enhanced by including one or more adhesive receptacles on the upper and/or lower surface of the first overmolded part that interface with at least the actuator in accordance with the foregoing. One or more adhesive receptacles may be formed in the first overmolded part that adjoin both the actuator and the coil, such that an adhesive disposed therein will attach to the actuator, the first overmolded part, and the coil.~~

~~Any appropriate adhesive may be utilized in relation to the first aspect, and the adhesive may be applied in any appropriate manner. For instance, both wicking and non-wicking adhesives may be utilized. An advantage of a wicking adhesive is that the adhesive will tend to migrate from the corresponding adhesive receptacle into any interconnected space between the overmolded part and the adjoining actuator or coil. Since fixtures are not required in accordance with the first aspect, thermally cured adhesives may be used. However, UV-cured epoxies could also be used in relation to the first aspect.~~

~~A second aspect of the present invention is embodied by a method for mounting a voice coil motor coil to an actuator for a data storage device (e.g., a disk drive). A voice coil motor coil and an actuator are disposed within a mold. A first molded part is formed in the mold and that structurally joins the actuator and the coil. A bobbin is also formed by a molding operation and that structurally joins the coil with the bobbin. The coil is disposed about at least part of the bobbin (e.g., the bobbin being disposed within an opening in the coil). One or more adhesive receptacles are formed in either the first molded part or the bobbin, or in both the first molded part and the bobbin, during a molding operation. Thereafter, the actuator, the first molded part, the coil, and the bobbin are removed from the mold as a single unit, since the first molded part is~~

~~attached to both the actuator and the coil by a molding operation, and further since the bobbin is attached to the coil by a molding operation as well. An adhesive is disposed in one or more of the adhesive receptacles.~~

~~Various refinements exist of the features noted in relation to the second aspect of the present invention. Further features may also be incorporated in the second aspect of the present invention as well. These refinements and additional features may exist individually or in any combination. The first molded part and the bobbin may and typically will be simultaneously formed by a single, common molding operation. Overmolding techniques may be used in the molding of the first molded part and the bobbin. Other types of molding techniques may be appropriate and yet still comply with the above-noted requirements of the second aspect. In any case, since the coil is attached to the actuator by a molding operation, and further since the bobbin is attached to the coil by a molding operation, no fixtures are required when disposing an appropriate adhesive in one or more of the adhesive receptacles that may be defined in the molding operation in accordance with the second aspect. That is, the molding of the first molded part and the bobbin itself disposes the coil in a fixed, predetermined position relative to the actuator for purposes of the application of an adhesive.~~

~~In the case of the second aspect, the molding operation(s) that defines the first molded part and the bobbin may be viewed as providing a first level of attachment of the coil to the actuator, and of the coil to the bobbin, respectively. Depending upon the location of a particular adhesive receptacle, adding adhesive to a particular adhesive receptacle may increase the stiffness of the interconnection between the first molded part and the actuator, of the~~

~~interconnection between the first molded part and the coil, of the interconnection between the coil and the bobbin, or any combination of one or more of the noted interconnections.~~

~~Each adhesive receptacle that is defined by a molding operation in the case of the second aspect may be of any appropriate size and/or configuration, but will typically be located at a perimeter of the relevant molded part (the first molded part, the bobbin, or both) such that depositing an adhesive therein will allow the adhesive to attach to both the molded part and the adjoining structure (the actuator and/or the coil). A plurality of adhesive receptacles may be spaced along the interface between the first molded part and the adjoining actuator, along the interface between the first molded part and the coil, or both. A single adhesive receptacle may extend along the entire interface between at least the first molded part and the adjoining actuator, along the entire interface between at least the first molded part and the adjoining coil, or both. One or more adhesive receptacles may be formed in the first molded part that adjoin both the actuator and the coil, such that an adhesive disposed therein will attach to the actuator, the first molded part, and the coil. The above-described adhesive receptacles may be formed on the top and/or bottom surface of the first molded part as well. In one embodiment, any such adhesive receptacle extends only partially through the first molded part. Another embodiment has any such adhesive receptacle extending entirely through the first molded part.~~

~~A plurality of adhesive receptacles also may be spaced along the interface between the bobbin and the coil in the case of the second aspect. Another option is for an adhesive receptacle to be formed by the molding operation that extends along the entire interface between bobbin and the coil. One or more of these types of adhesive receptacles may be formed on the top surface of the bobbin, on the bottom surface of the bobbin, or on both the top and bottom surfaces of the~~

~~bobbin. In one embodiment, any such adhesive receptacle extends only partially through the bobbin. Another embodiment has any such adhesive receptacle extending entirely through the bobbin. Preferably, one or more adhesive receptacles exist at an interface between the first molded part and the actuator, at an interface between the first molded part and the coil (this same adhesive receptacle(s) may also exist at an interface between the first molded part and the actuator as noted above), and at the interface between the bobbin and the coil.~~

~~Any appropriate adhesive may be utilized in relation to the second aspect, and the adhesive may be applied in any appropriate manner. For instance, both wicking and non-wicking adhesives may be utilized. An advantage of a wicking adhesive is that the adhesive will tend to migrate from the corresponding adhesive receptacle into any interconnected space between the molded part and the adjoining actuator and/or coil. Since fixtures are not required in accordance with the second aspect, thermally cured adhesives may be used. However, UV cured epoxies could also be used in relation to the second aspect.~~

~~A third aspect of the present invention is embodied by a method for mounting a voice coil motor coil to an actuator for a data storage device (e.g., a disk drive). A first bonding operation is used to attach a coil to an actuator. Thereafter, a different, second bonding operation is used to attach the coil to the actuator as well.~~

~~Various refinements exist of the features noted in relation to the third aspect of the present invention. Further features may also be incorporated in the third aspect of the present invention as well. These refinements and additional features may exist individually or in any combination. The first bonding operation may provide a first stiffness for an interconnection between the actuator and the coil, while the subsequent, second bonding operation may increase~~

the stiffness of this interconnection. In one embodiment, the first bonding operation is in the form of an overmolding operation, while the second bonding operation utilizes an adhesive (e.g., disposing adhesive within a space between portions of the actuator and the coil). Attaching the coil to the actuator first by an overmolding operation may alleviate the need for using any fixtures when applying an adhesive to any space between the actuator and the coil.

The above-noted overmolding operation may define a first overmolded part that structurally interconnects the coil and the actuator in the case of the third aspect. The overmolding operation thereby attaches the first overmolded part to both the actuator and the coil. Any other number of appropriate structures may be defined by the overmolding operation as well. For instance, a bobbin may be defined by the overmolding operation. The coil may be disposed about at least part of the bobbin, with the bobbin being attached to the coil by the overmolding operation. A coil with a bobbin already attached thereto (e.g., via a press fit) may be overmolded to the actuator in accordance with the third aspect as well. Adhesive may be applied to a space between this coil/bobbin assembly and the first overmolded part, to a space between the first overmolded part and the actuator, or both.

The coil and actuator may be disposed within a mold for execution of an overmolding operation in accordance with the third aspect. The overmolding operation may be viewed as providing a first level of attachment of the coil to the actuator. The actuator and attached coil thereby may be removed from the mold as a single unit for application of an appropriate adhesive in accordance with the third aspect. That is, the adhesive may be introduced into a relevant space between an overmolded structure and one or more of the coil and actuator after the actuator with the coil attached thereto has been removed from the mold as a single unit. Since the coil is

already attached to the actuator by the overmolding operation, no fixtures are required when applying an appropriate adhesive in accordance with the third aspect. That is, the overmolding operation itself disposes the coil in a fixed, predetermined position relative to the actuator, thereby alleviating the need for any fixture for the application of an adhesive.

An overmolding operation in accordance with the third aspect may include forming at least one adhesive receptacle in at least one overmolded part that is defined by the overmolding operation, and an adhesive may be deposited in any such adhesive receptacle further in accordance with the third aspect. Each such adhesive receptacle may be of any appropriate size and/or configuration, but will typically be located at a perimeter of the relevant overmolded part such that depositing an adhesive therein will allow the adhesive to attach to both the overmolded part and the adjoining actuator and/or coil. A plurality of adhesive receptacles may be spaced along the interface between the overmolded part and the adjoining actuator or coil. A single adhesive receptacle may extend along the entire interface between the overmolded part and the adjoining actuator or coil. One or more adhesive receptacles may be formed in the overmolded part that adjoin both the actuator and the coil, such that an adhesive disposed therein will attach to the actuator, the overmolded part, and the coil to further strengthen the interconnection of the coil to the actuator. One or more adhesive receptacles in accordance with the foregoing may be formed on the top and/or bottom surface of the relevant overmolded part as well. In one embodiment, any such adhesive receptacle extends only partially through the corresponding overmolded part. Another embodiment has any such adhesive receptacle extending entirely through the corresponding overmolded part.

~~Consider the case where an overmolding operation in accordance with the third aspect forms a first overmolded part that attaches the coil to the actuator, and also forms a second overmolded part or bobbin within an opening in the coil that is also attached to the coil. The interconnection between the bobbin and coil may be enhanced by including one or more adhesive receptacles on the upper and/or lower surface of the bobbin that interface with the coil in accordance with the foregoing. The interconnection between the coil and the first overmolded part may be enhanced by including one or more adhesive receptacles on the upper and/or lower surface of the first overmolded part that interface with the coil in accordance with the foregoing. Finally, the interconnection between the first overmolded part and the actuator may be enhanced by including one or more adhesive receptacles on the upper and/or lower surface of the first overmolded part that interface with the actuator in accordance with the foregoing. One or more adhesive receptacles may be formed in the first overmolded part that adjoin both the actuator and the coil, such that an adhesive disposed therein will attach to the actuator, the first overmolded part, and the coil.~~

~~Any appropriate adhesive may be utilized in relation to the third aspect, and the adhesive may be applied in any appropriate manner. For instance, both wicking and non-wicking adhesives may be utilized. An advantage of a wicking adhesive is that the adhesive will tend to migrate from the corresponding adhesive receptacle into any interconnected space between the overmolded part and the adjoining actuator and/or coil. Since fixtures are not required in accordance with the third aspect, thermally cured adhesives may be used. However, UV cured epoxies could also be used in relation to the third aspect.~~

~~A fourth aspect of the present invention is embodied by a method for mounting a voice coil motor coil to an bobbin for a data storage device (e.g., a disk drive). A first bonding operation is used to attach a coil to a bobbin. Thereafter, a different, second bonding operation is used to attach the coil to the bobbin as well.~~

~~Various refinements exist of the features noted in relation to the fourth aspect of the present invention. Further features may also be incorporated in the fourth aspect of the present invention as well. These refinements and additional features may exist individually or in any combination. The first bonding operation may provide a first stiffness for an interconnection of the bobbin and the coil, while the subsequent, second bonding operation may increase the stiffness of this interconnection. In one embodiment, the first bonding operation is in the form of an overmolding operation, while the second bonding operation utilizes an adhesive (e.g., disposing adhesive within a space between portions of the bobbin and the coil). Attaching the coil to the bobbin first by an overmolding operation may alleviate the need for using any fixtures when applying an adhesive to any interconnection between the bobbin and the coil.~~

~~The bobbin may be defined by the overmolding operation in the case of the fourth aspect, and this overmolding operation may also attach the bobbin to the coil. This overmolding operation may include forming at least one adhesive receptacle in the bobbin, and an adhesive may be deposited in any such adhesive receptacle further in accordance with the fourth aspect. Each such adhesive receptacle may be of any appropriate size and/or configuration, but will typically be located at a perimeter of the bobbin such that depositing an adhesive therein will allow the adhesive to attach to both the bobbin and the adjoining coil. A plurality of adhesive receptacles may be spaced along the interface between the bobbin and the adjoining coil. A~~

~~single adhesive receptacle may extend along the entire interface between the bobbin and the adjoining coil. One or more adhesive receptacles in accordance with the foregoing may be formed on the top and/or bottom surface of the bobbin as well. In one embodiment, any such adhesive receptacle extends only partially through the bobbin. Another embodiment has any such adhesive receptacle extending entirely through the bobbin.~~

~~The above-noted overmolding operation in accordance with the fourth aspect may also define a first overmolded part that attaches to both the coil and an actuator for the data storage device. The interconnection between the bobbin and coil may be enhanced by including one or more adhesive receptacles on the upper and/or lower surface of the bobbin that interface with the coil in accordance with the foregoing. The interconnection between the coil and the first overmolded part may be enhanced by including one or more adhesive receptacles on the upper and/or lower surface of the first overmolded part that interface with the coil in accordance with the foregoing. Finally, the interconnection between the first overmolded part and the actuator may be enhanced by including one or more adhesive receptacles on the upper and/or lower surface of the first overmolded part that interface with the actuator in accordance with the foregoing. One or more adhesive receptacles may be formed in the first overmolded part that adjoin both the actuator and the coil, such that an adhesive disposed therein will attach to the actuator, the first overmolded part, and the coil.~~

~~Any appropriate adhesive may be utilized in relation to the fourth aspect, and the adhesive may be applied in any appropriate manner. For instance, both wicking and non-wicking adhesives may be utilized. An advantage of a wicking adhesive is that the adhesive will tend to migrate from the corresponding adhesive receptacle into any interconnected space between the~~

~~overmolded part and the adjoining actuator or coil. Since fixtures are not required in accordance with the fourth aspect, thermally cured adhesives may be used. However, UV cured epoxies could also be used in relation to the fourth aspect.~~